UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>06 June 2007</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-20</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-20</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All   b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Response to Amendment

1. This action is in response to the amendment filed on 06/06/2007.

2. This is a non-final action due to 101 rejection to claims 1-9 which was not introduced in the prior action.

3. The rejections under 35 U.S.C. §112 second paragraph to claim 1-20 is withdrawn in view of Applicant's amendment.

4. The rejections under 35 U.S.C. §101 second paragraph to claim 1-20 is withdrawn in view of Applicant's amendment.

5. Claims 1-20 are pending.

Response to Arguments

6. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

7. The status of claim 9 is incorrect; it should have been "Currently Amended". However, to expedite the prosecution the office is not sending a non-compliant action. Applicants are respectfully requested to correct the status of claim 9 in the next response.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9.   Claims 1-9 are rejected under 35 U.S.C. 101 because the claimed invention

is directed to non-statutory subject matter.

Claims 1-9 are directed to apparatus of functional descriptive material per se,

and hence non-statutory. The recited components of the claims can reasonably be

interpreted as computer program modules—software per se. Also, the specification

discloses that many of the features and techniques may be implemented in software

(see Specification – Pages 5 and 11). Therefore, the claims constitute computer

programs representing computer listings per se. Such descriptions or expressions of the

programs are not physical "things." They are neither computer components nor

statutory processes, as they are not "acts" being performed. Such claimed computer

programs do not define any structural and functional interrelationships between the

computer program and other claimed elements of a computer, which permit the

computer program's functionality to be realized. In contrast, a claimed computer-

readable medium encoded with a computer program is a computer element, which

defines structural and functional interrelationships between the computer program and

the rest of the computer, that permits the computer program's functionality to be

realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11.   Claims 1-20 are rejected under 35 U.S.C. 102(b) as being unpatentable over

US Patent No. 5,898,836 to Freivald et al. (hereinafter, Freivald) in view of

Japanese Patent Publication No. 11-272686 to Muneyuki et al. (hereinafter,

Muneyuki).

Per claim 1:

Freivald discloses:

- An electronic document significant updating detection apparatus comprising:

- input means for loading a detected electronic document and a comparable

    electronic document (col. 4, lines 22-26 "...change in the document is detected

    by comparing a checksum for the checked portion of the document...");

- significant updating detection means for detecting a difference between contents

    of an important part of the input detected electronic document and contents of an

    important part of the input comparable electronic document (col. 4, lines 30-45

    "...A compare means is coupled to the parsing means. It signals a match...any of

    the checksums generated...matches the original checksum from the

    database...a change in the document is detected when the match is not signaled

    by the compare means...parsing means generates a plurality of checksums for

    the plurality of portions of the fresh copy").

Freivald does not explicitly disclose means for extracting important parts from the

detected electronic document and the comparable electronic document; said significant

updating means including means for checking whether contents of the detected

difference are significant; and output means for one of displaying or notifying a user of

the detected difference of significantly updated contents.

However, Muneyuki discloses in an analogous computer system means for

extracting important parts from the detected electronic document and the comparable

electronic document (paragraph [0007-0008] "...characterized by extracting a sentence

including an important expression as an important sentence for the document...

Drawing 1 is the processing flow Fig. of the document important sentence extract

approach of this invention..."); said significant updating means including means for

checking whether contents of the detected difference are significant (paragraph [0008]

"...Carry out morphological analysis of the inputted this document (step S2), divide this

document by which morphological analysis was carried out per sentence (step S3), and

the unsuitable expression table which described the expression unsuitable as an

important sentence... sentence which included the important expression out of the

document which removed the sentence including an unsuitable expression is extracted

as an important sentence (step S5)"); and output means for one of displaying or

notifying a user of the detected difference of significantly updated contents (paragraph

[0012] "All the sentences that be described on the important expression table 43 and

that shifted and included that expression are extracted out of a document as an

important sentence by the important sentence extract section 24. The extracted

important sentence is outputted to the document output unit 30").

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to incorporate the method of means for extracting

important parts from the detected electronic document and the comparable electronic

document; said significant updating means including means for checking whether

contents of the detected difference are significant; and output means for one of

displaying or notifying a user of the detected difference of significantly updated contents

as taught by Muneyuki into the method of detecting changes in the web page

documents as taught by Freivald. The modification would be obvious because of one of

ordinary skill in the art would be motivated to have means for extracting important parts

from the detected electronic document and the comparable electronic document; said

significant updating means including means for checking whether contents of the

detected difference are significant; and output means for one of displaying or notifying a

user of the detected difference of significantly updated contents to provide the system to

extract the important sentence in a document that can be easily extracted in a high

precision manner as suggested by Muneyuki (paragraph [0035]).

Per claims 2:

The rejection of claim 1 is incorporated and further, Freivald does not explicitly

disclose wherein the means for extracting important parts is part of the significant

updating detection, which means comprises a pre-process section for extracting

important parts from the detected electronic document and the comparable electronic document, and a difference extraction section for performing difference extraction to a result extracted by the pre-process section.

However, Muneyuki discloses in an analogous computer system wherein the means for extracting important parts is part of the significant updating detection (paragraph [0007-0008] "...characterized by extracting a sentence including an important expression as an important sentence for the document... Drawing 1 is the processing flow Fig. of the document important sentence extract approach of this invention..."), which means comprises a pre-process section for extracting important parts from the detected electronic document and the comparable electronic document (paragraph [0008] "...Carry out morphological analysis of the inputted this document (step S2), divide this document by which morphological analysis was carried out per sentence (step S3), and the unsuitable expression table which described the expression unsuitable as an important sentence... sentence which included the important expression out of the document which removed the sentence including an unsuitable expression is extracted as an important sentence (step S5)"), and a difference extraction section for performing difference extraction to a result extracted by the pre-process section (paragraph [0012] "All the sentences that be described on the important expression table 43 and that shifted and included that expression are extracted out of a document as an important sentence by the important sentence extract section 24. The extracted important sentence is outputted to the document output unit 30").

The feature of wherein the means for extracting important parts is part of the significant updating detection , which means comprises a pre-process section for extracting important parts from the detected electronic document and the comparable electronic document, and a difference extraction section for performing difference extraction to a result extracted by the pre-process section would be obvious for the reasons set forth in the rejection of claim 1.

Per claim 3:

The rejection of claim 2 is incorporated and further, Freivald does not explicitly disclose wherein the pre-process section determines the important parts by checking whether the important parts include a predetermined keyword or not.

However, Muneyuki discloses in an analogous computer system wherein the pre-process section determines the important parts by checking whether the important parts include a predetermined keyword or not (paragraph [0010] "morphological analysis section 21 performs morphological analysis for the document received from the document input unit 10 with reference to the word dictionary 41, and sends out this document by which morphological analysis was carried out to the simple sentence division section 22").

The feature of wherein the pre-process section determines the important parts by checking whether the important parts include a predetermined keyword or not would be obvious for the reasons set forth in the rejection of claim 1.

Per claim 4:

The rejection of claim 1 is incorporated and further, Freivald does not explicitly disclose wherein the significant updating detection means comprises a difference extraction section for extracting a difference between the detected electronic document and the comparable electronic document, and a value determination section for determining whether the extracted difference is a significant difference or not.

However, Muneyuki discloses in an analogous computer system wherein the significant updating detection means comprises a difference extraction section for extracting a difference between the electronic document to be detected (paragraph [0007-0008] "...characterized by extracting a sentence including an important expression as an important sentence for the document... Drawing 1 is the processing flow Fig. of the document important sentence extract approach of this invention...") and the electronic document to be compared, and a value determination section for determining whether the extracted difference is a significant difference or not (paragraph [0008] "...Carry out morphological analysis of the inputted this document (step S2), divide this document by which morphological analysis was carried out per sentence (step S3), and the unsuitable expression table which described the expression unsuitable as an important sentence... sentence which included the important expression out of the document which removed the sentence including an unsuitable expression is extracted as an important sentence (step S5)").

The feature of wherein the significant updating detection means comprises a difference extraction section for extracting a difference between the electronic document to be detected and the electronic document to be compared, and a value determination section for determining whether the extracted difference is a significant difference or not would be obvious for the reasons set forth in the rejection of claim 1.

Per claim 5:

The rejection of claim 4 is incorporated and further, Freivald does not explicitly disclose wherein the value determination section determines whether the difference is a significant difference or not by using attribute determination or the like performed by natural language processing such as morphological analysis.

However, Muneyuki discloses in an analogous computer system wherein the value determination section determines whether the difference is a significant difference or not by using attribute determination or the like performed by natural language processing such as morphological analysis (paragraph [0008] "...Carry out morphological analysis of the inputted this document (step S2), divide this document by which morphological analysis was carried out per sentence (step S3), and the unsuitable expression table which described the expression unsuitable as an important sentence... sentence which included the important expression out of the document which removed the sentence including an unsuitable expression is extracted as an important sentence (step S5)").

The feature of wherein the value determination section determines whether the difference is a significant difference or not by using attribute determination or the like performed by natural language processing such as morphological analysis would be obvious for the reasons set forth in the rejection of claim 1.

Per claim 6:

The rejection of claim 1 is incorporated and further, Freivald discloses:

- wherein the means for extracting important parts is part of the significant updating detection, which means comprises a pre-process section for extracting important parts from the detected electronic document and the comparable electronic document (col. 8, lines 37-45 "...The HTML tag characters are then examined at line 147 to determine if the HTML tag is a link to a linked URL. If the HTML tag characters are a link to a linked URL, then the linked URL is extracted from the HTML tag characters and added to the end of the link list L at line 149..."), a difference extraction section for extracting a difference between the results extracted by the pre-process sections, and a value determination section for determining whether the extracted difference is a significant difference or not (col. 8, lines 37-45 "If the HTML tag characters are not a link, then the HTML tag characters form an HTML tag and are ignored (performing differences)... process of reading and examining HTML web content data characters is continued by the loop...until... the buffer is empty and the network socket is closed").

Per claim 7:

The rejection of claim 6 is incorporated and further, Freivald does not explicitly

disclose wherein the pre-process section determines the important parts by checking

whether the important parts include a predetermined keyword or not.

However, Quintero discloses in an analogous computer system wherein the

pre-process section determines the important parts by checking whether the important

parts include a predetermined keyword or not (paragraph [0010] "morphological

analysis section 21 performs morphological analysis for the document received from the

document input unit 10 with reference to the word dictionary 41, and sends out this

document by which morphological analysis was carried out to the simple sentence

division section 22")..

The feature of wherein the pre-process section determines the important parts

by checking whether the important parts include a predetermined keyword or not would

be obvious for the reasons set forth in the rejection of claim 1.

Per claim 8:

The rejection of claim 6 is incorporated and further, Freivald does not explicitly

disclose wherein the value determination section determines whether a difference is a

significant difference or not by using attribute determination or the like performed by

natural language processing such as morphological analysis.

However, Muneyuki discloses in an analogous computer system wherein the

value determination section determines whether a difference is a significant difference

or not by using attribute determination or the like performed by natural language

processing such as morphological analysis (paragraph [0010] "morphological analysis

section 21 performs morphological analysis for the document received from the

document input unit 10 with reference to the word dictionary 41, and sends out this

document by which morphological analysis was carried out to the simple sentence

division section 22")..

The feature of wherein the value determination section determines whether a

difference is a significant difference or not by using attribute determination or the like

performed by natural language processing such as morphological analysis would be

obvious for the reasons set forth in the rejection of claim 1.

Per claim 9:

The rejection of claim 1 is incorporated and further, Freivald discloses:

- wherein the output means notifies an external information processing apparatus

  of a detection result of the significant updating detection means (col. 3, lines 64-

  67 to col. 4, lines 1-6 "...responder communicates with the remote client to

  register a document for change detection by receiving from the remote client...

  document...entire document...").

Claims 10, 15, and 18 are the method claim corresponding to apparatus claims 1,

6, and 9 respectively, and rejected under the same rational set forth in connection

with the rejection of claims 1, 6, and 9 respectively, above.

Claims 11-14, 16 and 17 are the method claim corresponding to apparatus claims

2-5, 7 and 8 respectively, and rejected under the same rational set forth in

connection with the rejection of claims 2-5, 7 and 8 respectively, above.

Per claim 19:

The rejection of claim 10 is incorporated and further, Freivald discloses:

- wherein the respective steps of the electronic document significant updating

   detection method according to claim 10 are described in a code which is

   processable by a computer (See FIG. 1 element 14 and related discussion and

   col. 18, lines 65-67 "...program code...").

Per claim 20:

The rejection of claim 19 is incorporated and further, Freivald discloses:

- wherein the electronic document significant updating detection program

   according to claim 19 is recorded on the recording medium (col. 18, lines 65-67

   "computer-readable program code").

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Satish S. Rampuria** whose telephone number is **(571) 272-3732**. The examiner can normally be reached on **8:30 am to 5:00 pm** Monday to Friday except every other Friday and federal holidays. Any inquiry of a general nature or relating to the status of this application should be directed to the **TC 2100 Group receptionist: 571-272-2100.**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wei Y. Zhen** can be reached on **(571) 272-3708**. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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